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Recent Progress in Electro- Gynecology.

Read before the Section on Obstetrics and Diseases of Women, at the
Forty-fourth Annual Meeting of the American Medical Association.

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REPRINTED FROM
THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
SEPTEMBER 2, 1893.



CHICAGO:
PUBLISHED AT THE OFFICE OF THE ASSOCIATION.
1893.



RECENT PROGRESS IN ELECTRO- GYNECOLOGY.

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The year's progress in the art of applying electricity as a remedy in the diseases of women has been of twofold character, embracing increased exactness in an art requiring technical knowledge of a high order on the one hand, and on the other an increased use of the remedy by conservative gynecologists. The allurements of a surgical ambition continue to operate as a bar to the higher electrical skill of some operators it is true, but a still greater number are becoming convinced that the diseases of women have a deeper significance than mere cosmetic accuracy of outline in pelvic organs; and that an agent capable of doing much in the cure of diseased processes, the relief of suffering and restoration of function deserves a more careful study than has been given to it by those who regard gynecology and surgery as synonymous terms.

RESTORATION OF FUNCTION.

It is too often forgotten that the highest art of the physician is shown in the restoration of normal functionation in an organ or set of organs. In the case of the pelvic organs of women, the disparity between the current literature devoted to the removal

of more or less diseased members and their cure is very great and indicates, it is to be feared, that the lesser work replaces the greater in actual practice. The prevention of diseased action in organs is of course a still higher work, but while the busy physician may be pardoned for relegating preventive medicine in some measure to the hygienist, he should not be pardoned for neglecting possible cures of diseased organs and turning his attention exclusively to their ablation and amputation. One of the benefits conferred upon gynecology by the introduction of electro-therapeutics into its remedial armament, is the recalling of professional attention to healthier channels of therapeutic endeavor by the infusion of new hope in the efficacy of conservative methods.

In this agency we have a valuable remedy for the congestions and relaxations that interfere with pelvic functions, and lead consequentially to more pronounced disease. Its control over abnormal menstruation is often successful where drugs have been found to be ineffective, and it may thus be of service in the removal of those conditions so frequently leading to positive disease of the ovaries or of the nervous system in early maidenhood. A mere external application of the galvanic current of large dose between periods, through scientifically adapted cutaneous electrodes, may be amply sufficient as a curative remedy in both amenorrhœa and menorrh-spasm; but when this has been insufficient to cure in a given case, we must use the same method during the actual attack of menstrual pain. This almost invariably ends the immediate attack, though a permanently curative effect will require at times that an

intra-uterine negative application be made, and my quickest successes have been attained when the application was made during the flow itself.

On the electrical treatment of menorrhagia and uterine hemorrhage I will not dwell, as its efficiency is generally conceded, though too often not used by those who continue to employ harmful drugs or curettage.

It is not a little strange that the classical treatises on gynecology, with the exception of that of Barnes, are practically silent on the disturbances of that function which, certainly next to menstruation and conception, is most closely associated with our practical work as gynecologists. In coining and defining the term *dyspareunia*, this writer, too, but touched on a considerable field of maternal impotencies, the bearing of which upon conditions and sufferings daily encountered is far more important than generally conceded. A little research in many cases of ovarian and lumbar pain in married women will point to this as a cause, even though periuterine tenderness or displacements may be present, and particularly if catarrhal conditions of the uterus and tubes are absent. A merely physical and passive performance of a function normally requiring a most delicate co-ordination of nerves, muscles and glands cannot be other than prolific of local congestions and more general nerve aches, and this result is often found in both participants, for a law of nature has been broken which even dogs obey. The causal conditions underlying dyspareunia are not merely hyperæsthetic conditions of the vulva, on which stress was laid by Barnes, but also muscular relaxations

of the vagina which make it impossible for the act to be reciprocal, leading to bruising and disturbance of the internal parts, and more or less pronounced nerve strain. The connection of electro-therapeutics with this subject is obvious. In the vaginal applications of both currents we have a direct exciter of the flagging energies of the constrictor cunni and levator muscles and the circular fibers of the vagina, though care should be exercised that an over-long stimulation does not lead to fatigue. The swelling method of turning the current on and off is best, and the faradic current may be applied, either bipolar or monopolar, the coarse secondary or primary coils being selected in preference. Probably the most effective exciter is the combined primary faradic and galvanic, negative monopolar electrode, the indifferent pole being on the back. This method also relieves the congestion and tenderness in the uterus and ovaries while adding tone to the muscles.

In the treatment of maternal sterility due to catarrhal disease of the uterus the galvanic current may also be relied on as of direct service, in addition to the possible results that may be derived from electricity in the associated condition just described. The method is that employed in the treatment of endometritis, with or without accompanying menorrh-spasm, and its use will be found to be far more effective than the commonly practiced operations of dilatation, and less likely to be followed by diseased tubes and ectopic pregnancies.

THE RELIEF OF OBSCURE PELVIC PAIN.

Excluding the functional disorders that have been mentioned, acute inflammations and neoplasms, it

will be found that most women apply for treatment for chronic pains and distresses of a more or less indefinable character. It becomes the duty of the physician to ascertain the cause of course, but even in case the probable cause can be located by exclusion in the pelvis, he has no more right to inflict injury in ascertaining its exact nature or providing theoretical relief than when other parts of the body are affected. An increased employment of vaginal applications of electricity is advocated in these obscure cases, in preference to so-called exploratory abdominal sections, which so frequently result in the removal of ovaries that are but slightly or not at all diseased. The electrical application may cure the case by stimulating the activity of the absorbents, and thus removing remnants of unsuspected inflammatory processes that had given rise to the distress, or by a direct action on the pelvic nerves, and if it does not thus clear up the obscurity the patient is yet in good shape for other remedies. Non-suppurative inflammations of the appendages, even prolapse of the ovaries, indicate this method, and it is often curative. To the interpolar action of the current itself we may add the action of iodine, driven into the tissues from the positive vaginal electrode by the recently revived method of cataphoresis.

CHRONIC METRITIS.

The researches of electro-gynecology are, however, contributing towards a revival of the older views, which attributed to the uterus the chief place as the seat of chronic inflammatory trouble, as well as an avenue of infection for parts higher up. The light recently reflected on the diseases of the appendages

by operative surgeons has rendered incalculable aid in diagnosis, but should not blind us to the possibilities of a continuance of the chief trouble within the uterus, demanding local treatment for its alleviation. The possibility of employing strong galvanic currents of more than fifty milliampères for this purpose without creating unpleasant irritation, has been enhanced by the use of cotton covered elastic electrodes of platinum within the uterine cavity, the cotton having been saturated with a solution of cocaine if the endometrium is sensitive, or with a watery solution of an antiseptic agent. This simple expedient will permit of the addition of cataphoretic medication of the uterus to the galvanic application with results, so far as the addition is concerned, that are yet under judgment. The value of the current itself in combating endometritis and hyperplastic metritis is well established, and its more general employment will not only remedy a numerous class of cases of recognized uterine inflammations, but also render the operations of curettage and trachelorrhaphy and the wearing of pessaries of rare and infrequent utility.

FIBROID TUMORS.

With their accustomed alertness, American physicians have not only absorbed the French experiences as to the value of electricity in fibroid growths of the uterus, but have pushed the investigation farther, as evidenced by well-attested instances of actual disappearance of the tumors, several of which were reported during the year. The field of this remedy in fibroids is being more accurately delineated, as added experience teaches that it is most useful in

the interstitial and intramural varieties, or when the subperitoneal buds are still sessile. But little effect can be expected in the subperitoneal variety, unless the tumor is particularly well situated for either pelvic or abdominal puncture. Oedematous myomas, or tumors that have undergone cystic degeneration, are distinctly unsuited to electric treatment, and the same may be said of all such growths accompanied by purulent degeneration of the appendages; though simple non-purulent inflammations of the appendages do not constitute a contra-indication. The interstitial tumors, both hemorrhagic and non-hemorrhagic, in which electricity is curative form a large group, and the testimony of many recent workers in the field fully bears out the statement of Keith that it should have the preference over dangerous and uncertain operations for their removal.

Among the several methods of applying the current, preference continues to be given to the intra-uterine applications. The use of vaginal punctures is confined to those cases in which the intra-uterine method is impracticable, as it rarely presents any relative advantage. I have myself reported good results from abdominal puncture in cases of large growths unsuited to other methods. Mere vaginal applications are, however, at times of service, and the possibility of contracting a myoma by external applications even has been amply demonstrated.

Being free from danger in any but reckless hands and certain to be of some service in every suitable case, the electrical treatment of fibroid tumors should be the method of choice as a remedy for these benign growths, whether hemorrhagic or non-hemorrhagic,

reserving operative procedures for cases in which electricity is unsuitable. With this careful selection, the best good of the patient is assured and all apparent conflict of opinions avoided.

CONCLUSIONS.

In recapitulation, it may be said that electricity in some one of its methods of application is indicated as a useful remedy in loss of functional tone in the reproductive organs; in obscure pains in this region; in catarrhal diseases of the pelvic mucous membranes, inclusive of endometritis and its consequence, sterility; in uterine hypertrophies and chronic periuterine inflammations of a non-purulent character; and in interstitial and certain subperitoneal fibroids, whether hemorrhagic or non-hemorrhagic. So much and more has been amply demonstrated and proven, under the fire of a criticism rarely bestowed on any single therapeutic agent. That definite limitations to its use have been proven is also true and almost equally important, yet of this remedy it may be said that, unlike most remedies, the limitations to its usefulness may continue in the present only, for our knowledge of the agent is of so progressive a character that the boundaries of to-day's information may be left far behind to-morrow.

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